Amendment and Response Serial No.: 10/591,199 Confirmation No.: 4302

Filed: June 13, 2007 For: ESTROGEN RECEPTORS AND METHODS OF USE

## Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the aboveidentified application:

- (Currently Amended) An isolated monoclonal antibody that specifically binds to an
  amino acid sequence depicted at SEQ ID NO:1[[,]] or an immunogenic fragment thereof.
- 2-4. (Canceled)
- (Original) The antibody of claim 1 wherein the antibody is covalently attached to a compound.
- 6. (Original) The antibody of claim 5 wherein the compound is a chemotherapeutic agent.
- 7. (Original) The antibody of claim 5 wherein the compound is a detectable marker.
- (Original) The antibody of claim 7 wherein the detectable marker is a fluorescent marker.
- (Original) The antibody of claim 1 wherein the antibody specifically binds to an amino acid sequence depicted at amino acids 13-27 of SEQ ID NO:1.
- (Original) A composition comprising an antibody of claim 1.
- (Original) The composition of claim 10 further comprising a pharmaceutically acceptable carrier.

For: ESTROGEN RECEPTORS AND METHODS OF USE

- 12. (Currently Amended) A method for making an antibody comprising administering to an animal a polypeptide comprising an amino acid sequence depicted at amino acids 13-27 of SEQ ID NO:1[[,]] or an immunogenic fragment thereof, and isolating the antibody from the animal, wherein the isolated antibody specifically binds to the amino acid sequence.
- (Previously Presented) The method of claim 12 wherein the polypeptide or immunogenic fragment thereof is covalently attached to a carrier polypeptide.
- 14. (Currently Amended) A method for making an antibody comprising: administering to an animal a polypeptide comprising an amino acid sequence depicted at amino acids 13-27 of SEQ ID NO:1[[,]] or an immunogenic fragment thereof; obtaining from the animal a cell that produces the antibody; making a monoclonal antibody-producing hybridoma using the cell; and isolating a monoclonal antibody from the monoclonal antibody-producing hybridoma,

wherein the isolated monoclonal antibody specifically binds to the amino acid sequence.

- 15. (Original) A polyclonal antibody produced by a method of claim 12.
- (Original) A monoclonal antibody produced by a method of claim 14.
- 17-28. (Canceled)
- (Currently Amended) A method for detecting a polypeptide comprising: providing a cell;
- analyzing the cell for a polypeptide, wherein the polypeptide has a molecular weight of 36 kDa as measured following electrophoresis on a sodium dodecyl sulfate (SDS)-polyacrylamide

For: ESTROGEN RECEPTORS AND METHODS OF USE

gel, and is recognized by an <u>isolated</u> antibody that specifically binds to a polypeptide comprising the amino acid sequence depicted in SEQ ID NO:1; and

determining whether the cell expresses the polypeptide;

wherein analyzing the cell for a polypeptide comprises contacting the cell with an antibody that specifically binds to the amino acid sequence depicted at SEQ ID NO:1 or an immunogenic fragment thereof, and detecting the bound antibody.

- 30. (Original) The method of claim 29 wherein the cell is ex vivo.
- 31. (Original) The method of claim 30 wherein the cell is a tumor cell.
- 32. (Original) The method of claim 31 wherein the tumor is a breast tumor.
- 33. (Original) The method of claim 29 wherein the cell is in vivo.
- 34. (Currently Amended) The method of claim 33 30 wherein the cell is a tumor cell.
- 35. (Currently Amended) The method of claim 34 31 wherein the tumor is a breast tumor.
- 36. (Canceled)
- (Currently Amended) The method of claim 29 36 wherein the antibody is covalently attached to a detectable marker.
- 38. (Previously Presented) The method of claim 37 wherein the detectable marker is a fluorescent marker.

For: ESTROGEN RECEPTORS AND METHODS OF USE

## 39-51. (Canceled)

- 52. (Currently Amended) A kit comprising the isolated monoclonal antibody of claim 1 an isolated antibody that specifically binds to an amino acid sequence depicted at SEQ ID NO:1, or an immunogenic fragment thereof, and a packaging material.
- (New) The isolated monoclonal antibody of claim 1, wherein the monoclonal antibody comprises a humanized monoclonal antibody.
- 54. (New) The antibody of claim 53 wherein the antibody is covalently attached to a compound.
- 55. (New) The antibody of claim 54 wherein the compound is a chemotherapeutic agent.
- 56. (New) The antibody of claim 54 wherein the compound is a detectable marker.
- 57. (New) The antibody of claim 56 wherein the detectable marker is a fluorescent marker.
- 58. (New) The antibody of claim 53 wherein the antibody specifically binds to an amino acid sequence depicted at amino acids 13-27 of SEQ ID NO:1.
- 59. (New) A composition comprising an antibody of claim 53.
- (New) The composition of claim 59 further comprising a pharmaceutically acceptable carrier.

For: ESTROGEN RECEPTORS AND METHODS OF USE

- (New) The method of claim 29 wherein the isolated antibody comprises a monoclonal antibody.
- 62. (New) The method of claim 61 wherein the monoclonal antibody comprises a humanized monoclonal antibody.
- (New) The kit of claim 52 wherein the monoclonal antibody comprises a humanized monoclonal antibody.